

Date: Friday, 2/23/2007 1:59:33 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: FRAME WELDMENT
Job Number	: 30949		
Estimate Number	: 11202		
P.O. Number	: <i>NIA</i>	Part Number	: D3330041
This Issue	: 2/23/2007 S.O. No. : <i>NIA</i>	Drawing Number	: D3330 REV B1
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: <i>NIA</i> Type : LARGE FAB ASSY	Drawing Revision	: B1
Previous Run	: 28614	Material	: <i>NIA</i>
Written By	:	Due Date	: 3/20/2007
Checked & Approved By	: <i>[Signature]</i> 07.02.26	Qty:	<i>3</i> Um: Each
Comment	: Est. A 05.01.13 New Issue KJ/JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	D33301	Panel
-----	--------	-------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Panel

Pick:

Qty	Part Number	Description	Batch
-----	-------------	-------------	-------

1	D3330-1	Panel	<i>330955</i>
---	---------	-------	---------------

Pl 07.08.23

2.0	D33302	Panel
-----	--------	-------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Panel

Pick:

Qty	Part Number	Description	Batch
-----	-------------	-------------	-------

1	D3330-2	Panel	<i>330958</i>
---	---------	-------	---------------

Pl 07.08.23

3.0	D33303	Panel
-----	--------	-------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Panel

Pick:

Qty	Part Number	Description	Batch
-----	-------------	-------------	-------

1	D3330-3	Panel	<i>330959</i>
---	---------	-------	---------------

Pl 07.08.23

4.0	D33305	Rail
-----	--------	------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Rail

Pick:

Qty	Part Number	Description	Batch
-----	-------------	-------------	-------

1	D3330-5	Panel	<i>330960</i>
---	---------	-------	---------------

Pl 07.08.23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 2/23/2007 1:59:34 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME WELDMENT

Job Number: 30949

Part Number: D3330041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D33307

Panel



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Panel

Pick:

Qty Part Number Description Batch
1 D3330-7 Panel B30961

Cpl 07-08-23

6.0

D33309

Top Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Top Plate

Pick:

Qty Part Number Description Batch
1 D3330-9 Panel B23053

Cpl 07-08-23

7.0

D333011

Long Pin Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Long Pin Bracket

Pick:

Qty Part Number Description Batch
1 D3330-11 Long Pin Bracket B23590

Cpl 07-08-23

8.0

D333013

Short Pin Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Short Pin Bracket

Pick:

Qty Part Number Description Batch
1 D3330-13 Short Pin Bracket B23235

Cpl 07-08-23

9.0

D333015

Handle



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Handle

Pick:

Qty Part Number Description Batch
1 D3330-15 Handle B23046

Cpl 07-08-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	App Chief E Prod Mgr	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 2/23/2007 1:59:34 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME WELDMENT

Job Number: 30949

Part Number: D3330041

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0

D333017

Handle Socket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)
Handle Socket

Pick:

Qty Part Number Description Batch
1 D3330-17 Handle Socket

B30956

Pl 07-08-23

11.0

D333019

Handle Rim



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)
Handle Rim

Pick:

Qty Part Number Description Batch
1 D3330-19 Handle Rim

B30957

Pl 07-08-23

12.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1
Assemble and Weld as per Dwg Dwg D3330 using D3330-041T1
Identify as D3330-041

Pl 07-08-23

13.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

Pl 07/08/23 (3)

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Pl 07/08/23 (3)

15.0

POWDER COATING

POWDER COATING



M18052



(3x)

Comment: POWDER COATING
Powder Coat Fire Red (Ref: 4.3.5.10) as per QSI 005 4.3

m. h 07/08/25

16.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Pl 7/8/27 (3)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: R Date: 07/08/27

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 2/23/2007 1:59:34 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME WELDMENT

Job Number: 30949

Part Number: D3330041

Job Number:



Seq. #:

Machine Or Operation:

Description :

17.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 484

PC 7/4/27 (2)
FINAL INSPECTION/W/O RELEASE

18.0

QC21



(3)

Comment: FINAL INSPECTION/W/O RELEASE

07/08/27

Job Completion



W 07/08/27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

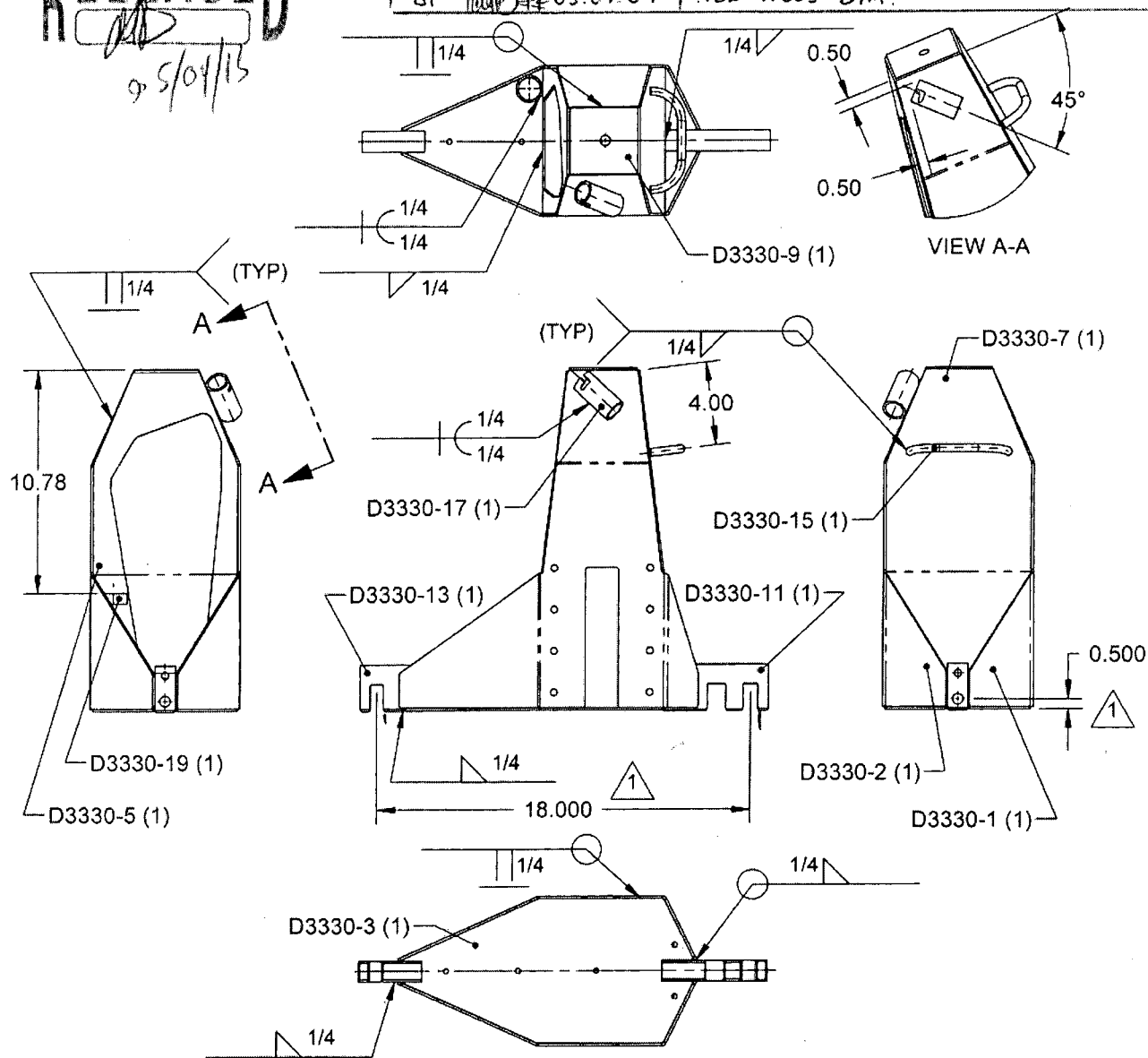
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



RELEASED
9/5/04/15

DESIGN 13	DRAWN BY 13	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED R	APPROVED R	DRAWING NO. D3330	REV. B SHEET 1 OF 9
DATE 05.02.26		TITLE FRAME WELDMENT	SCALE 1:8
A	04.12.16	NEW ISSUE	
B	05.02.26	REDESIGN	
BI	05.07.04	ADD 1.605 DIM.	



D3330-041 FRAME WELDMENT

NOTES:

- 1) POSITION PARTS AS PER JIG D3330-041T1
- 2) WELD PER QSI 004
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

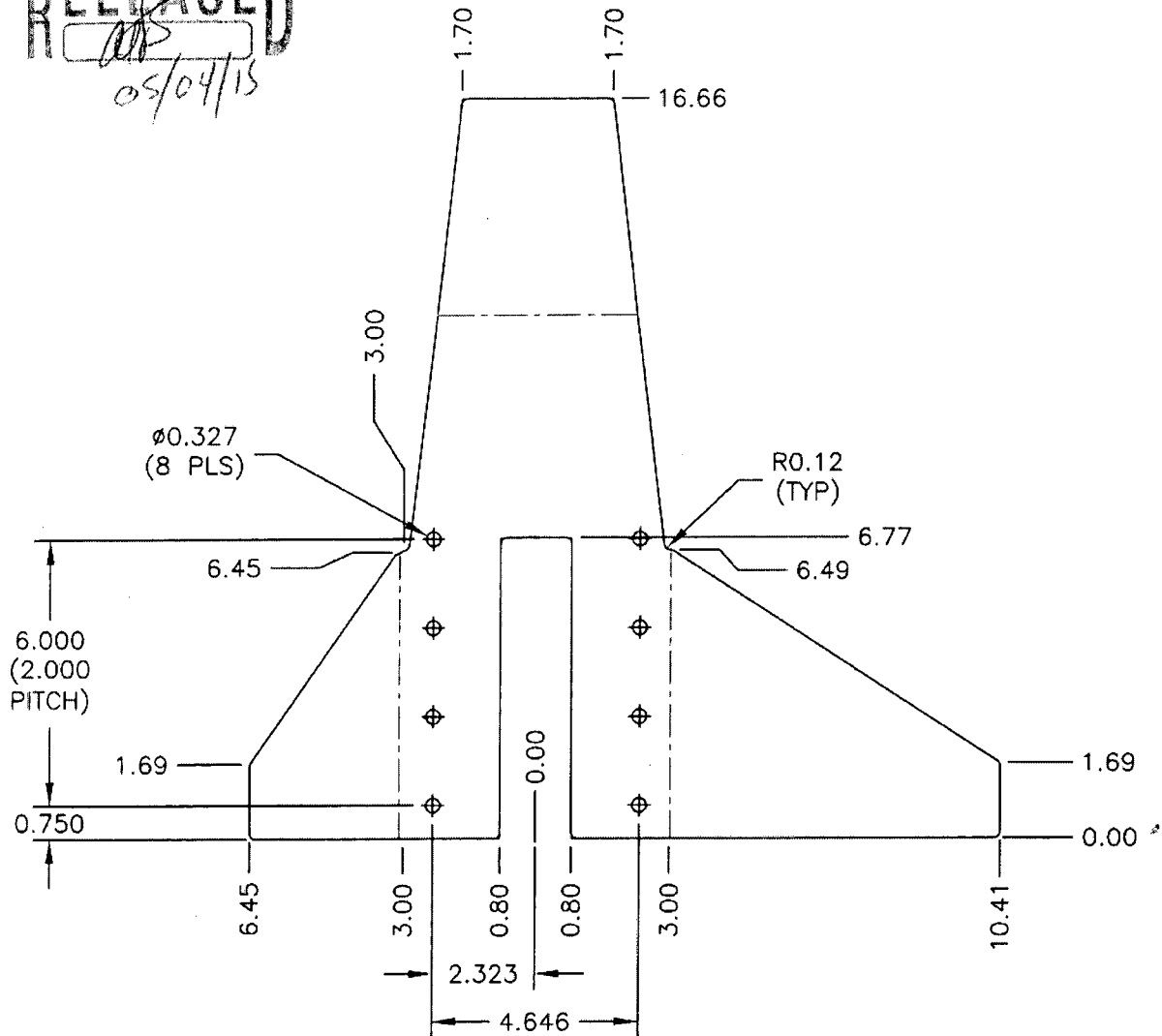
COPYRIGHT © 2004 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3330	REV. B SHEET 2 OF 9
DATE 05.02.26		TITLE FRAME WELDMENT	SCALE 1:4

RELEASED
[Signature]
05/04/15



D3330-1 PANEL

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING

UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

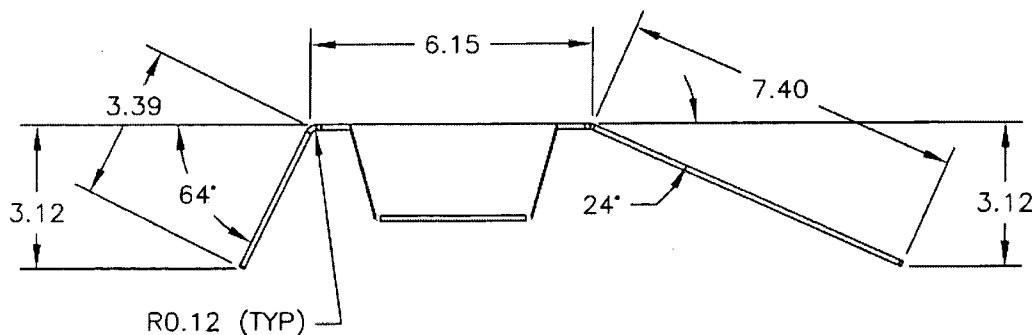
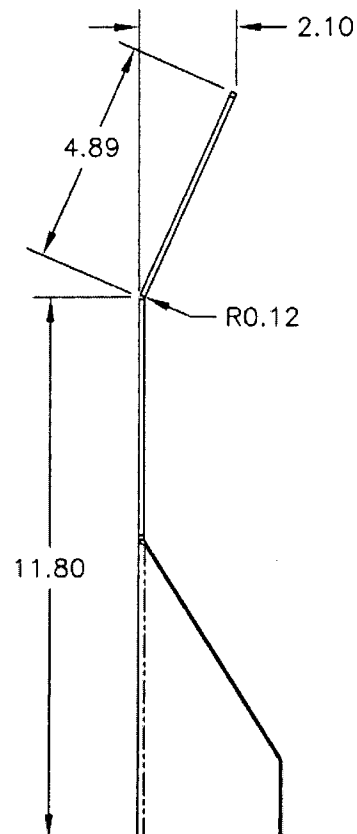
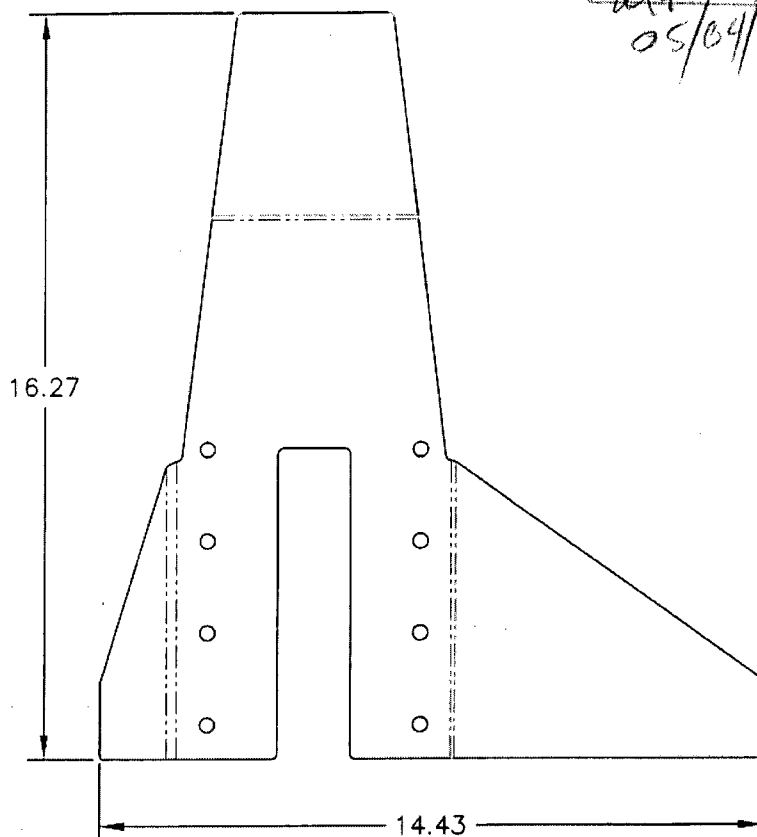
Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3330	REV. B SHEET 3 OF 9
DATE 05.02.26		TITLE FRAME WELDMENT	SCALE 1:4

RELEASED
[Signature]
05/04/15



D3330-1 BEND DETAIL (SHOWN)
BEND D3330-2 (OPPOSITE)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

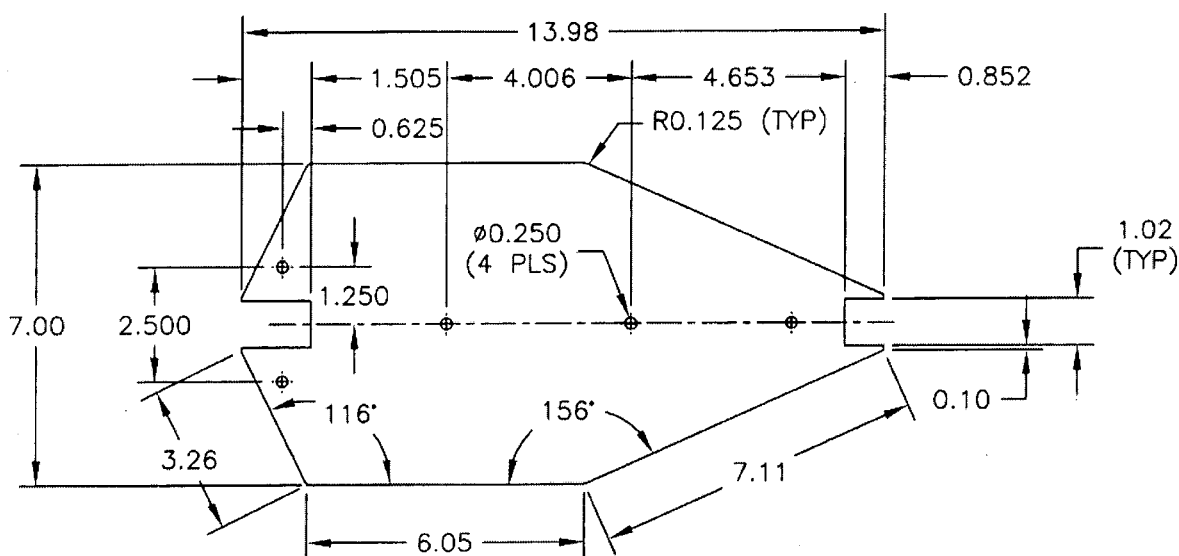
Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN 13	DRAWN BY 13	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 13	APPROVED [Signature]	DRAWING NO. D3330	REV. B SHEET 4 OF 9
DATE 05.02.26		TITLE FRAME WELDMENT	SCALE 1:4

RELEASED
[Signature]
05/04/15



D3330-3 PLATE

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING

UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

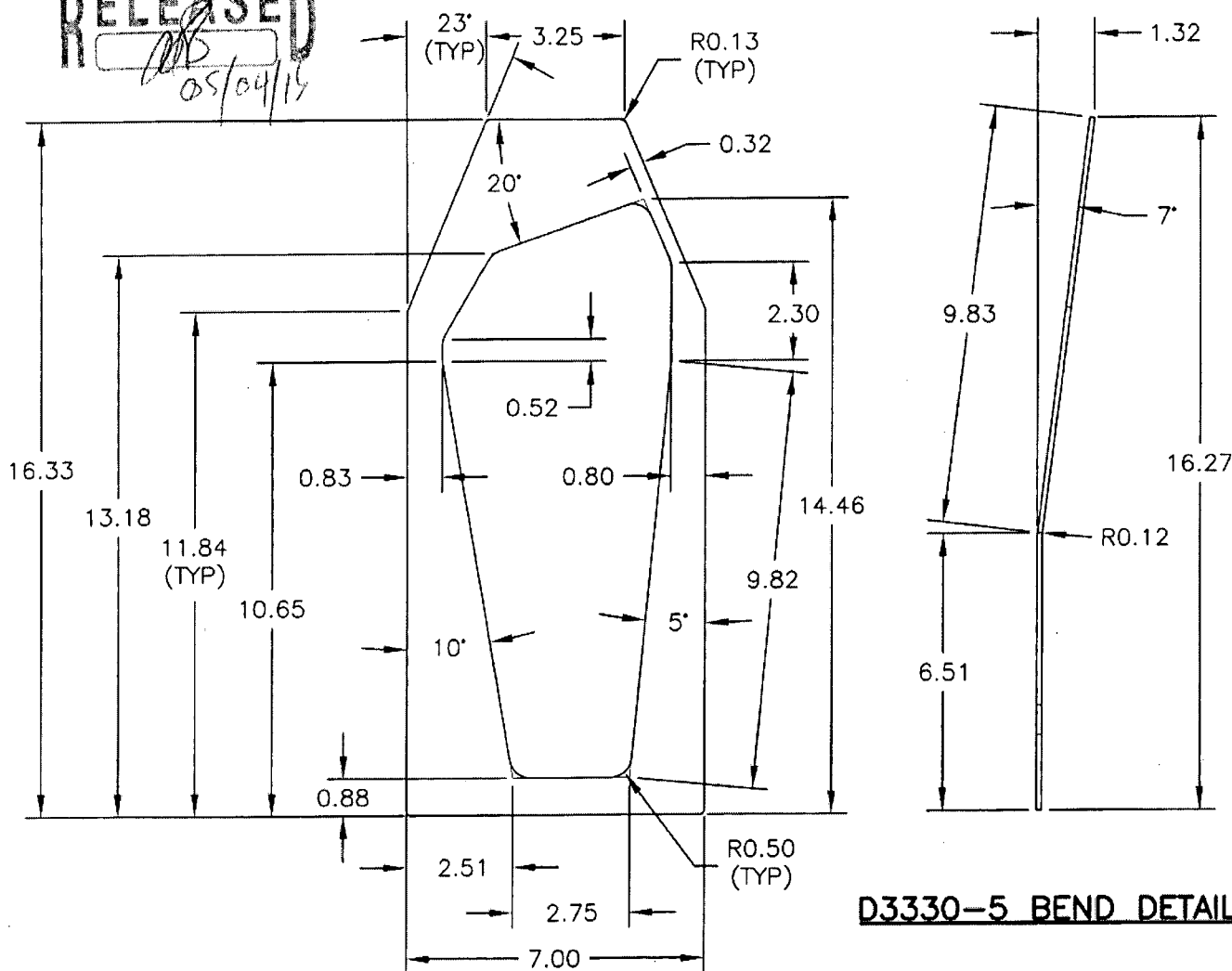
Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN 43	DRAWN BY 43	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 78	APPROVED [Signature]	DRAWING NO. D3330	REV. B SHEET 5 OF 9
DATE 05.02.26	TITLE FRAME WELDMENT		SCALE 1:4

RELEASED
05/04/15



D3330-5 BEND DETAIL

FLAT PATTERN

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

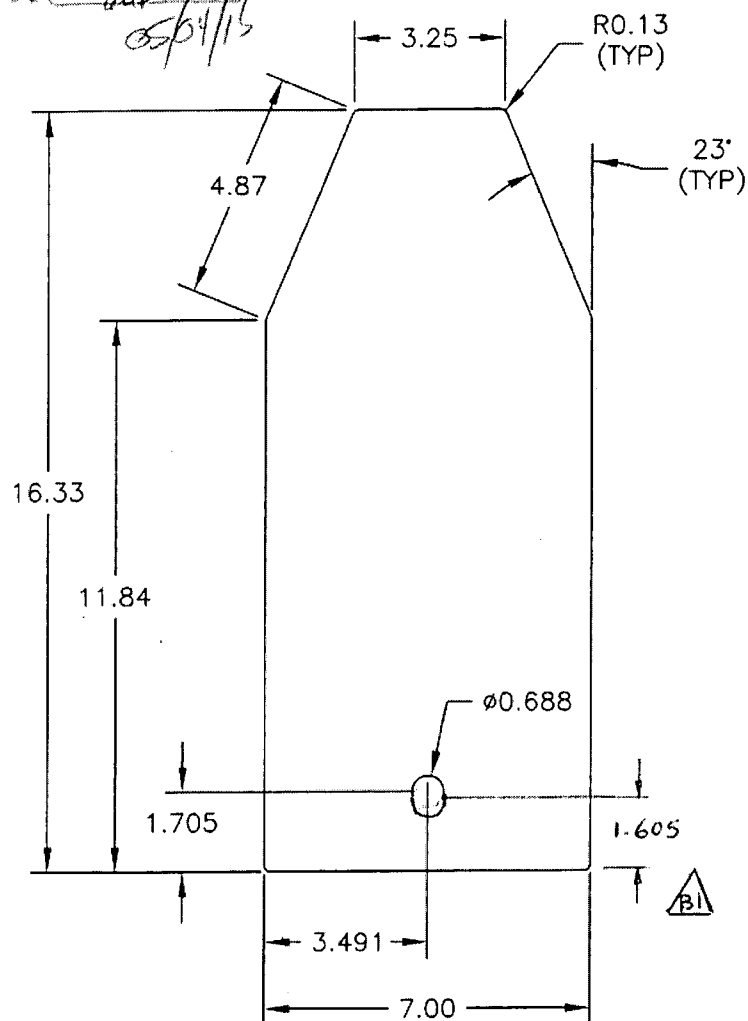
Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

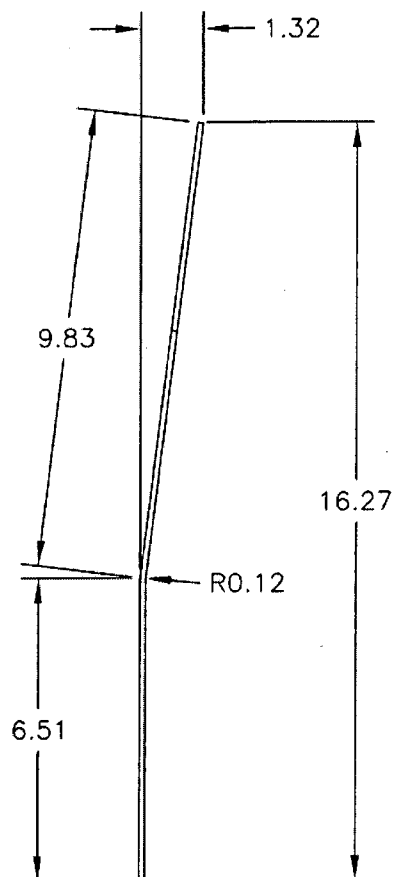


DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3330	REV. B SHEET 6 OF 9
DATE 05.02.26		TITLE FRAME ASSEMBLY	SCALE 1:4

RELEASED



FLAT PATTERN



D3330-7 BEND DETAIL

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

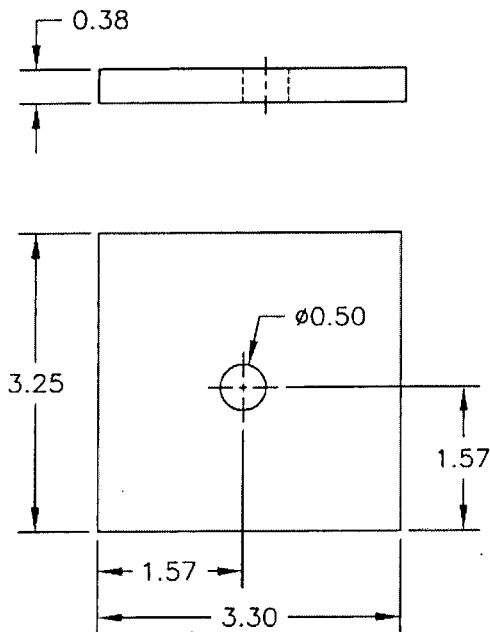
SHOP COPY
RETURN TO
ENGINEERING
UNLESS ROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

Copyright © 2004 by DART AEROSPACE LTD

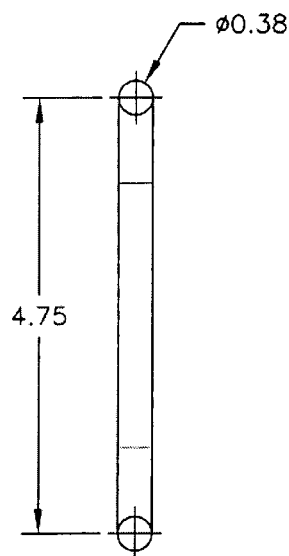
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3330	REV. B SHEET 7 OF 9
DATE 05.02.26		TITLE FRAME WELDMENT	SCALE 1:2



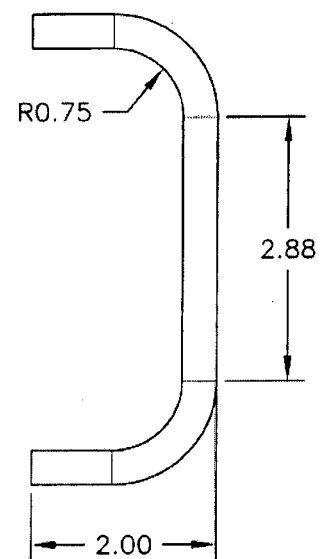
△ D3330-9 TOP PLATE



△ D3330-15 HANDLE

RELEASED
[Signature]

05/04/15



NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008, 0.375 STEEL
(REF. DART SPEC. M1010-B0.375x3.500)
- 2) MATERIAL: AISI 1018-1025 ROUND BAR PER MIL-S-7097
(REF. DART SPEC. M1018-R0.375)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

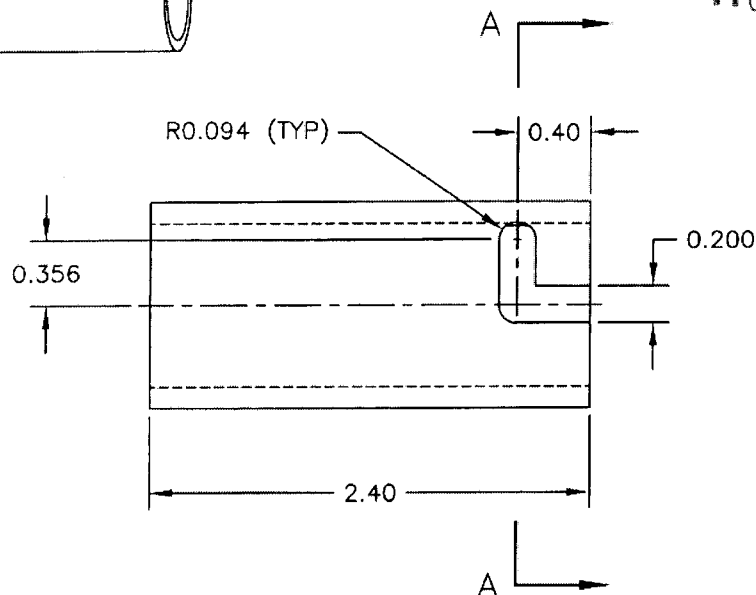
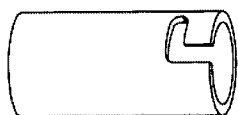
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

Copyright © 2004 by DART AEROSPACE LTD

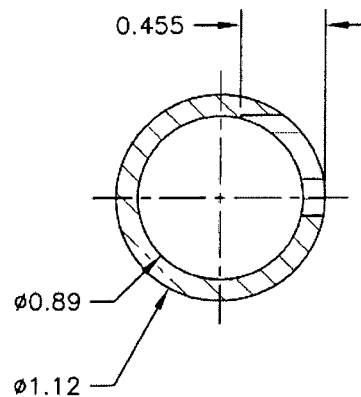
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN #3	DRAWN BY #2	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #4	APPROVED [Signature]	DRAWING NO. D3330	REV. B SHEET 8 OF 9
DATE 05.02.26	TITLE FRAME WELDMENT		SCALE 1:1

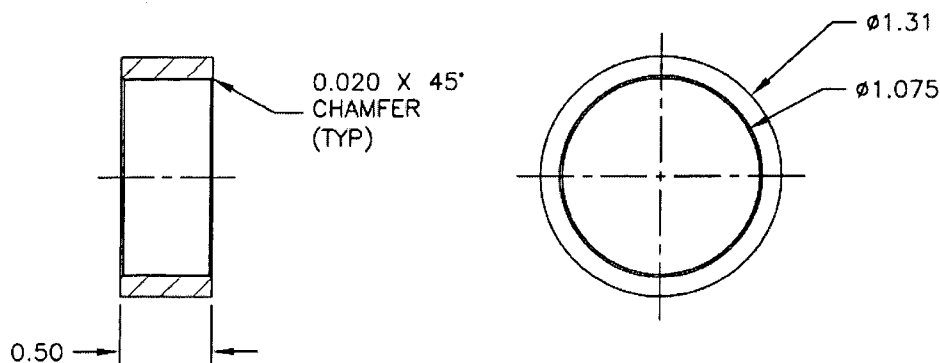


RELEASED
05/04/15



SECTION A-A

D3330-17 HANDLE SOCKET



D3330-19 HANDLE RIM

NOTES:

- 1) MATERIAL: 1010-1025 ROUND BAR STEEL PER MILL-S-7097 (REF. DART SPEC. M1025TR)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

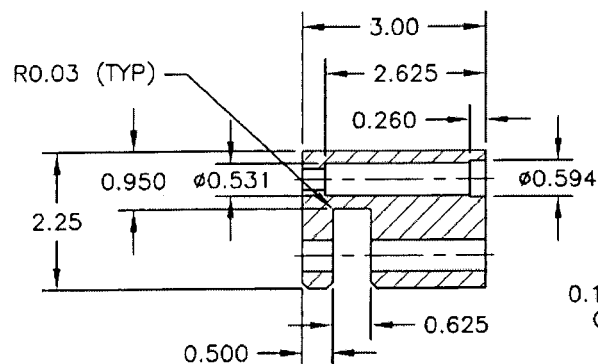
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

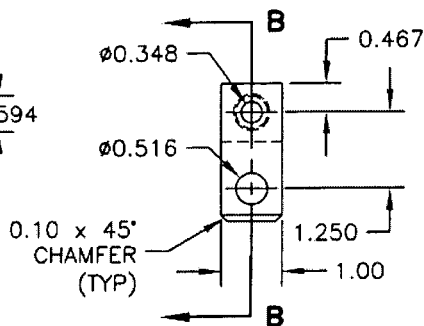


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3330	REV. B SHEET 9 OF 9
DATE 05.02.26	TITLE FRAME WELDMENT		SCALE 1:3

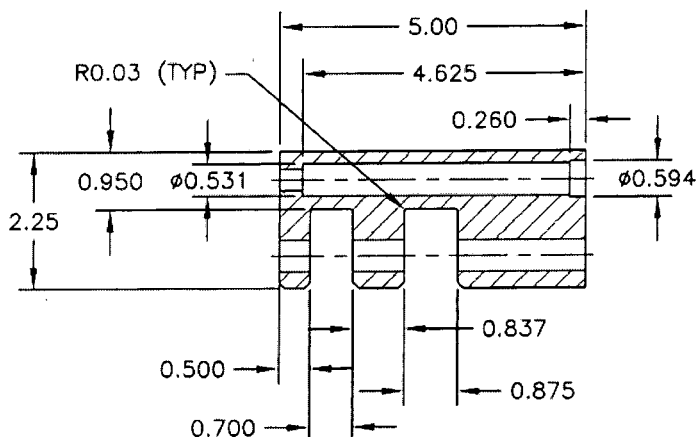
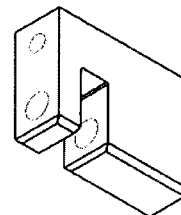


SECTION B-B

D3330-13 SHORT PIN BRACKET

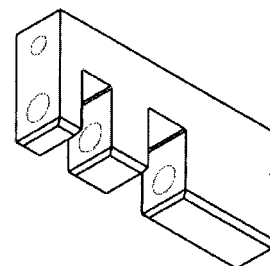
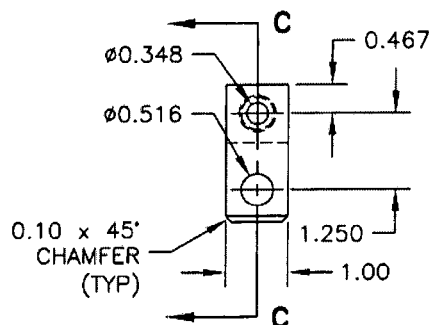


RELEASED
[Signature]
05/04/15



SECTION C-C

D3330-11 LONG PIN BRACKET



NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570, 1.000 THICK STEEL (REF. DART SPEC. M1010-B1.000x02.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 30949

Copyright © 2004 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.